

RECEIVED

NOV 21 2002

TECH CENTER 1600/2900

ENTERED



1600

#15

RAW SEQUENCE LISTING

DATE: 11/19/2002

PATENT APPLICATION: US/09/634,363

TIME: 14:23:58

Input Set : N:\Crf3\dbback2\Datahold\EFS\09634363\CIBT-P02-058SequenceListing.txt

Output Set: N:\CRF4\11192002\I634363.raw

3 <110> APPLICANT: Pang, K.

4 Lu, K.

6 <120> TITLE OF INVENTION: METHODS AND REAGENTS FOR TREATING GLUCOSE METABOLIC DISORDERS

8 <130> FILE REFERENCE: CIBT-P02-058

10 <140> CURRENT APPLICATION NUMBER: 09/634,363

11 <141> CURRENT FILING DATE: 2000-08-09

13 <150> PRIOR APPLICATION NUMBER: 09/499,526

14 <151> PRIOR FILING DATE: 2000-02-10

16 <160> NUMBER OF SEQ ID NOS: 4

18 <170> SOFTWARE: PatentIn version 3.1

20 <210> SEQ ID NO: 1

21 <211> LENGTH: 108

22 <212> TYPE: DNA

23 <213> ORGANISM: Homo sapiens

25 <220> FEATURE:

26 <221> NAME/KEY: CDS

27 <222> LOCATION: (1)..(108)

28 <223> OTHER INFORMATION:

W--> 30 <400> 1

31 tac ccc atc aaa ccc gag gct ccc ggc gaa gac gcc tcg ccg gag gag 48

32 Tyr Pro Ile Lys Pro Glu Ala Pro Gly Glu Asp Ala Ser Pro Glu Glu

33 1 5 10 15

35 ctg aac cgc tac tac gcc tcc ctg cgc cac tac ctc aac ctg gtc acc 96

36 Leu Asn Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr

37 20 25 30

39 cgg cag cgg tac 108

40 Arg Gln Arg Tyr

41 35

43 <210> SEQ ID NO: 2

44 <211> LENGTH: 36

45 <212> TYPE: PRT

46 <213> ORGANISM: Homo sapiens

48 <400> SEQUENCE: 2

50 Tyr Pro Ile Lys Pro Glu Ala Pro Gly Glu Asp Ala Ser Pro Glu Glu

51 1 5 10 15

54 Leu Asn Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr

55 20 25 30

58 Arg Gln Arg Tyr

59 35

61 <210> SEQ ID NO: 3

62 <211> LENGTH: 1650

63 <212> TYPE: DNA

64 <213> ORGANISM: Homo sapiens

RAW SEQUENCE LISTING

DATE: 11/19/2002

PATENT APPLICATION: US/09/634,363

TIME: 14:23:59

Input Set : N:\Crif3\dbback2\Datahold\EFS\09634363\CIBT-P02-

058SequenceListing.txt

Output Set: N:\CRF4\11192002\I634363.raw

66 <220> FEATURE:

67 <221> NAME/KEY: CDS

68 <222> LOCATION: (58)..(1380)

69 <223> OTHER INFORMATION:

W--> 71 <400> 3

```

72 gggcagaggg cacgggcagg cggacgtcgg ggcgcctcg gggaacgtgc gggcacc      57
74 atg cgt ccc cac ctg tgc ccg ccg ctg cag cag cta cta ctg ccg gtg      105
75 Met Arg Pro His Leu Ser Pro Pro Leu Gln Gln Leu Leu Leu Pro Val
76 1          5          10          15
78 ctg ctc gcc tgc gcc gcg cac tgc act gga gcc ctt ccc cga cta tgt      153
79 Leu Leu Ala Cys Ala Ala His Ser Thr Gly Ala Leu Pro Arg Leu Cys
80          20          25          30
82 gac gtg cta caa gtg ctg tgg gaa gag caa gac cag tgc ctg cag gaa      201
83 Asp Val Leu Gln Val Leu Trp Glu Glu Gln Asp Gln Cys Leu Gln Glu
84          35          40          45
86 ctc tcc aga gag cag aca gga gac ctg ggc acg gag cag cca gtg cca      249
87 Leu Ser Arg Glu Gln Thr Gly Asp Leu Gly Thr Glu Gln Pro Val Pro
88          50          55          60
90 ggt tgt gag ggg atg tgg gac aac ata agc tgc tgg ccc tct tct gtg      297
91 Gly Cys Glu Gly Met Trp Asp Asn Ile Ser Cys Trp Pro Ser Ser Val
92 65          70          75          80
94 ccg ggc cgg atg gtg gag gtg gaa tgc ccg aga ttc ctc cgg atg ctc      345
95 Pro Gly Arg Met Val Glu Val Glu Cys Pro Arg Phe Leu Arg Met Leu
96          85          90          95
98 acc agc aga aat ggt tcc ttg ttc cga aac tgc aca cag gat ggc tgg      393
99 Thr Ser Arg Asn Gly Ser Leu Phe Arg Asn Cys Thr Gln Asp Gly Trp
100          100          105          110
102 tca gaa acc ttc ccc agg cct aat ctg gcc tgt gcg gtt aat gtg aac      441
103 Ser Glu Thr Phe Pro Arg Pro Asn Leu Ala Cys Ala Val Asn Val Asn
104          115          120          125
106 gac tct tcc aac gag aag cgg cac tcc tac ctg ctg aag ctg aaa gtc      489
107 Asp Ser Ser Asn Glu Lys Arg His Ser Tyr Leu Leu Lys Leu Lys Val
108          130          135          140
110 atg tac acc gtg ggc tac agc tcc tcc ctg gtc atg ctc ctg gtc gcc      537
111 Met Tyr Thr Val Gly Tyr Ser Ser Ser Leu Val Met Leu Leu Val Ala
112 145          150          155          160
114 ctt ggc atc ctc tgt gct ttc cgg agg ctc cac tgc act cgc aac tac      585
115 Leu Gly Ile Leu Cys Ala Phe Arg Arg Leu His Cys Thr Arg Asn Tyr
116          165          170          175
118 atc cac atg cac ctg ttc gtg tcc ttc atc ctt cgt gcc ctg tcc aac      633
119 Ile His Met His Leu Phe Val Ser Phe Ile Leu Arg Ala Leu Ser Asn
120          180          185          190
122 ttc atc aag gac gcc gtg ctc ttc tcc tca gat gat gtc acc tac tgc      681
123 Phe Ile Lys Asp Ala Val Leu Phe Ser Ser Asp Asp Val Thr Tyr Cys
124          195          200          205
126 gat gcc cac agg gcg ggc tgc aag ctg gtc atg gtg ctg ttc cag tac      729
127 Asp Ala His Arg Ala Gly Cys Lys Leu Val Met Val Leu Phe Gln Tyr
128          210          215          220
130 tgc atc atg gcc aac tac tcc tgg ctg ctg gtg gaa ggc ctc tac ctt      777

```

RAW SEQUENCE LISTING

DATE: 11/19/2002

PATENT APPLICATION: US/09/634,363

TIME: 14:23:59

Input Set : N:\Crif3\dbback2\Datahold\EFS\09634363\CIBT-P02-

058SequenceListing.txt

Output Set: N:\CRF4\11192002\I634363.raw

```

131 Cys Ile Met Ala Asn Tyr Ser Trp Leu Leu Val Glu Gly Leu Tyr Leu
132 225                230                235                240
134 cac aca ctc ctc gcc atc tcc ttc ttc tct gaa aga aag tac ctc cag      825
135 His Thr Leu Leu Ala Ile Ser Phe Phe Ser Glu Arg Lys Tyr Leu Gln
136                245                250                255
138 gga ttt gtg gca ttc gga tgg ggt tct cca gcc att ttt gtt gct ttg      873
139 Gly Phe Val Ala Phe Gly Trp Gly Ser Pro Ala Ile Phe Val Ala Leu
140                260                265                270
142 tgg gct att gcc aga cac ttt ctg gaa gat gtt ggg tgc tgg gac atc      921
143 Trp Ala Ile Ala Arg His Phe Leu Glu Asp Val Gly Cys Trp Asp Ile
144                275                280                285
146 aat gcc aac gca tcc atc tgg tgg atc att cgt ggt cct gtg atc ctc      969
147 Asn Ala Asn Ala Ser Ile Trp Trp Ile Ile Arg Gly Pro Val Ile Leu
148                290                295                300
150 tcc atc ctg att aat ttc atc ctt ttc ata aac att cta aga atc ctg      1017
151 Ser Ile Leu Ile Asn Phe Ile Leu Phe Ile Asn Ile Leu Arg Ile Leu
152 305                310                315                320
154 atg aga aaa ctt aga acc caa gaa aca aga gga aat gaa gtc agc cat      1065
155 Met Arg Lys Leu Arg Thr Gln Glu Thr Arg Gly Asn Glu Val Ser His
156                325                330                335
158 tat aag cgc ctg gcc agg tcc act ctc ctg ctg atc ccc ctc ttt ggc      1113
159 Tyr Lys Arg Leu Ala Arg Ser Thr Leu Leu Leu Ile Pro Leu Phe Gly
160                340                345                350
162 atc cac tac atc gtc ttc gcc ttc tcc cca gag gac gct atg gag atc      1161
163 Ile His Tyr Ile Val Phe Ala Phe Ser Pro Glu Asp Ala Met Glu Ile
164                355                360                365
166 cag ctg ttt ttt gaa cta gcc ctt gcg tca ttc cag gga ctg gtg gtg      1209
167 Gln Leu Phe Phe Glu Leu Ala Leu Ala Ser Phe Gln Gly Leu Val Val
168                370                375                380
170 gcc gtc ctc tac tgc ttc ctc aac ggg gag gtg cag ctg gag gtt cag      1257
171 Ala Val Leu Tyr Cys Phe Leu Asn Gly Glu Val Gln Leu Glu Val Gln
172 385                390                395                400
174 aag aag tgg cag caa tgg cac ctc cgt gag ttc cca ctg cac ccc gtg      1305
175 Lys Lys Trp Gln Gln Trp His Leu Arg Glu Phe Pro Leu His Pro Val
176                405                410                415
178 gcc tcc ttc agc aac agc acc aag gcc agc cac ttg gag cag agc cag      1353
179 Ala Ser Phe Ser Asn Ser Thr Lys Ala Ser His Leu Glu Gln Ser Gln
180                420                425                430
182 ggc acc tgc agg acc agc atc atc tga gaggctggag cagggtcacc      1400
183 Gly Thr Cys Arg Thr Ser Ile Ile
184                435                440
186 catggacaga gaccaagaga ggtcctgcga aggctgggca ctgctgtggg acagccagtc      1460
188 ttcccagcag acaccctgtg tcctccttca gctgaagatg cccctcccca ggccttggac      1520
190 tcttccgaag gatgtgaggc actgtggggc aggacaaggg cctgggattt ggttcgtttg      1580
192 ctcttctggg aagagaagtt caggggtccc agaaagggac agggaaataa atggttgctt      1640
194 tgggatgaga
196 <210> SEQ ID NO: 4
197 <211> LENGTH: 440
198 <212> TYPE: PRT

```

RAW SEQUENCE LISTING

DATE: 11/19/2002

PATENT APPLICATION: US/09/634,363

TIME: 14:23:59

Input Set : N:\Crif3\dbback2\Datahold\EFS\09634363\CIBT-P02-
058SequenceListing.txt

Output Set: N:\CRF4\11192002\I634363.raw

```

199 <213> ORGANISM: Homo sapiens
201 <400> SEQUENCE: 4
203 Met Arg Pro His Leu Ser Pro Pro Leu Gln Gln Leu Leu Leu Pro Val
204 1 5 10 15
207 Leu Leu Ala Cys Ala Ala His Ser Thr Gly Ala Leu Pro Arg Leu Cys
208 20 25 30
211 Asp Val Leu Gln Val Leu Trp Glu Gln Asp Gln Cys Leu Gln Glu
212 35 40 45
215 Leu Ser Arg Glu Gln Thr Gly Asp Leu Gly Thr Glu Gln Pro Val Pro
216 50 55 60
219 Gly Cys Glu Gly Met Trp Asp Asn Ile Ser Cys Trp Pro Ser Ser Val
220 65 70 75 80
223 Pro Gly Arg Met Val Glu Val Glu Cys Pro Arg Phe Leu Arg Met Leu
224 85 90 95
227 Thr Ser Arg Asn Gly Ser Leu Phe Arg Asn Cys Thr Gln Asp Gly Trp
228 100 105 110
231 Ser Glu Thr Phe Pro Arg Pro Asn Leu Ala Cys Ala Val Asn Val Asn
232 115 120 125
235 Asp Ser Ser Asn Glu Lys Arg His Ser Tyr Leu Leu Lys Leu Lys Val
236 130 135 140
239 Met Tyr Thr Val Gly Tyr Ser Ser Ser Leu Val Met Leu Leu Val Ala
240 145 150 155 160
243 Leu Gly Ile Leu Cys Ala Phe Arg Arg Leu His Cys Thr Arg Asn Tyr
244 165 170 175
247 Ile His Met His Leu Phe Val Ser Phe Ile Leu Arg Ala Leu Ser Asn
248 180 185 190
251 Phe Ile Lys Asp Ala Val Leu Phe Ser Ser Asp Asp Val Thr Tyr Cys
252 195 200 205
255 Asp Ala His Arg Ala Gly Cys Lys Leu Val Met Val Leu Phe Gln Tyr
256 210 215 220
259 Cys Ile Met Ala Asn Tyr Ser Trp Leu Leu Val Glu Gly Leu Tyr Leu
260 225 230 235 240
263 His Thr Leu Leu Ala Ile Ser Phe Phe Ser Glu Arg Lys Tyr Leu Gln
264 245 250 255
267 Gly Phe Val Ala Phe Gly Trp Gly Ser Pro Ala Ile Phe Val Ala Leu
268 260 265 270
271 Trp Ala Ile Ala Arg His Phe Leu Glu Asp Val Gly Cys Trp Asp Ile
272 275 280 285
275 Asn Ala Asn Ala Ser Ile Trp Trp Ile Ile Arg Gly Pro Val Ile Leu
276 290 295 300
279 Ser Ile Leu Ile Asn Phe Ile Leu Phe Ile Asn Ile Leu Arg Ile Leu
280 305 310 315 320
283 Met Arg Lys Leu Arg Thr Gln Glu Thr Arg Gly Asn Glu Val Ser His
284 325 330 335
287 Tyr Lys Arg Leu Ala Arg Ser Thr Leu Leu Leu Ile Pro Leu Phe Gly
288 340 345 350
291 Ile His Tyr Ile Val Phe Ala Phe Ser Pro Glu Asp Ala Met Glu Ile
292 355 360 365
295 Gln Leu Phe Phe Glu Leu Ala Leu Ala Ser Phe Gln Gly Leu Val Val

```

RAW SEQUENCE LISTING

DATE: 11/19/2002

PATENT APPLICATION: US/09/634,363

TIME: 14:23:59

Input Set : N:\Crf3\dbback2\Datahold\EFS\09634363\CIBT-P02-
058SequenceListing.txt

Output Set: N:\CRF4\11192002\I634363.raw

296	370	375	380
299	Ala Val Leu Tyr Cys Phe Leu Asn Gly Glu Val Gln Leu Glu Val Gln		
300	385	390	395 400
303	Lys Lys Trp Gln Gln Trp His Leu Arg Glu Phe Pro Leu His Pro Val		
304		405	410 415
307	Ala Ser Phe Ser Asn Ser Thr Lys Ala Ser His Leu Glu Gln Ser Gln		
308		420	425 430
311	Gly Thr Cys Arg Thr Ser Ile Ile		
312		435	440

VERIFICATION SUMMARYPATENT APPLICATION: **US/09/634,363**

DATE: 11/19/2002

TIME: 14:24:00

Input Set : N:\Crf3\dbback2\Datahold\EFS\09634363\CIBT-P02-
058SequenceListing.txt

Output Set: N:\CRF4\11192002\I634363.raw

L:30 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:1,Line#:28

L:71 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:3,Line#:69